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SA

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/404,047 09/23/99 IYER

F AVERF2511USA

EXAMINER

IM52/0717

WILLIAM C TRITT
RENNER OTTO BOISSELLE & SKLAR PLL
1621 EUCLID AVENUE
19TH FLOOR
CLEVELAND OH 44115

LEE, R
ART UNIT

PAPER NUMBER

1713
DATE MAILED:

7
07/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/404,047

Applicant(s)

IYER ET AL.

Examiner

Rip A. Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-57 is/are pending in the application.
- 4a) Of the above claim(s) 47-57 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) 1-46 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims 1-57 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5 and 6.
- 18) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-46, drawn to composition for pressure sensitive adhesives, classified in class 524, subclass 543.
 - II. Claims 47-54, drawn to laminates, classified in class 428, subclass 343.
 - III. Claims 55-57, drawn to an adhesive article, classified in class 523, subclass 111.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as an adhesive composition and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. In the instant case, the adhesive composition can be used alone without incorporating it into a laminate.

3. Inventions I and III are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as an adhesive composition and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants. Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions anticipated by the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention. In the instant case, the adhesive composition can be used alone without incorporating it into a laminate containing article.

4. Inventions II and III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions are not related. A laminate does not necessarily have adhesive properties.

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5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II or III, restriction for examination purposes as indicated is proper.

7. During a telephone conversation with Mr. William C. Tritt on July 13, 2001, a provisional election was made with traverse to prosecute the invention of Group I, claims 1-46. Affirmation of this election must be made by applicant in replying to this Office action. Claims 47-57 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The context of the term, pressure sensitive adhesive, is inconsistent with the accepted meaning in the Applicant's specifications. As written in the claims, said adhesive is merely a mixture of monomers. The actual adhesive is a copolymer made from said monomers, and thus, it has a different chemical constitution than that specified in the claim.

3. While applicant may be his or her own lexicographer, a term in a claim may not be given a meaning repugnant to the usual meaning of that term. See *In re Hill*, 161 F.2d 367, 73 USPQ 482 (CCPA 1947). The term "glass transition temperature" in claim 2 is used by the claim to mean "glass transition temperature of the mixture of monomers cited in claim 1," while the accepted meaning is "glass transition temperature of a polymer."

4. Claim 4 recites the limitation "alkyl group" in line 12. There is insufficient antecedent basis for this limitation in the claim.

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5. Claims 8, 11, 13, 14, 16, 30, 38, 41, and 42 are rendered indefinite since they contain improper Markush language. According to MPEP 2173.05(h), when materials are so related as to constitute a proper Markush group, they may be recited as, “wherein R is a material selected from the group consisting of A, B, C and D,” or “wherein R is A, B, C, or D.”

6. Applicant is advised that should claim 1 be found allowable, claim 9 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

7. Applicant is advised that should claim 25 be found allowable, claim 36 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

8. Claim 8 and 18 are objected to because of the following informality: the last phrase of the sentence states, “...two of more thereof.” Appropriate correction is required.

9. Claim 33 and 37 are objected to because of the following informality: the second word of the claim states, “...adhesion...” Appropriate correction is required.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1, 3-8, 10-17, 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,812,541 to Mallya *et al.* and U.S. Patent No. 5,639,811 to Plamthottam *et al.*

Mallya *et al.* claim a copolymer comprised of (a) 55-85% alkyl (meth)acrylate ester, (b) 1-10% *N*-vinyl lactam, (c) 0-15% unsaturated carboxylic acid, and (d) a crosslinkable, glycidyl monomer in 0.01-2% by weight of the entire mixture. Up to 35% of said mixture consists of an alkyl (meth)acrylate ester whose alkyl group contains less than 4 carbon atoms (claim 1). The amounts of these components fall within or lie about the ranges described in the present invention. The identities of the types of compounds that can be used within each class of components are disclosed (col. 3, lines 50 –col. 4, line 6), and these are consistent with those listed in the claims of the present invention. In another embodiment, the mixture of claim 1 is further comprised of specifically defined copolymerizable monomers such as polystyryl ethyl methacrylate and acetoacetoxy ethyl methacrylate, among others (claim 2). In light of the above disclosure, Mallya *et al.* anticipate claims 1, 3-8, 10-16 of the present invention.

Plamthottam *et al.* claim a copolymer comprised of (a) 55-85% alkyl (meth)acrylate ester, (b) 0-30% *N*-vinyl lactam, (c) 0-15% unsaturated carboxylic acid, (d) 0.01-2% of a crosslinkable, glycidyl monomer, and (e) 0-35% alkyl (meth)acrylate ester whose alkyl group

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contains less than 4 carbon atoms (claim 1). The amounts of these components fall within or lie about the ranges described in the present invention. The identities of the types of compounds that can be used within each class of components are disclosed (col. 3, lines 37-64), and these are consistent with those listed in the claims of the present invention. A tackifier is incorporated into the mixture (claim 1), and the use of plasticizers and other addenda is contemplated (col. 5, lines 23-25). The use of aluminum acetylacetonate as a crosslinking agent is also taught (col. 8, line 30). In light of the above disclosure, Plamthottam *et al.* anticipate claims 1, 3-8, 10-14, 17, 19-21 of the present invention.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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14. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

15. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,812,541 to Mallya *et al.*

The discussion of the disclosures of the prior art of Mallya *et al.*, from paragraph 11 of this office action is incorporated here by reference.

The copolymer prepared as described in claim 1 is stated as having a glass transition temperature less than about -15 °C. In view of the apparent identity of the processes of the instant claims and in Mallya *et al.*, a reasonable basis exists to presume that products afforded by both methods would inherently possess similar properties. That is, it is highly likely that the copolymer product of the present invention would have a glass transition temperature less than +10 °C, as cited in claim 2. The burden of proof is shifted to the Applicant to provide controverting evidence since the PTO can not conduct experiments. *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980). See MPEP § § 2112-2112.02.

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16. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,639,811 to Plamthottam *et al.* in view of U.S. Patent No. 5,215,818 to Coopridier *et al.*

Plamthottam *et al.* contemplate the use of plasticizers in adhesive formulations with the intent of adjusting the properties of tackiness and cohesive strength (col. 5, line 24). However, the specification is silent in regard to the types of plasticizers that may be used. Coopridier *et al.* teach pressure sensitive adhesive copolymers that are comprised of alkyl (meth)acrylates and *N*-vinyl lactams (col. 3-4). Useful plasticizers which are compatible with these compositions include: dioctyl phthalate, 2-ethyl hexyl phosphate and cresyl phosphate (col. 7, lines 59-61). These are standard plasticizers that are well known in the art. The adhesives of Plamthottam *et al.* and Coopridier *et al.* are both acrylate based, so it is reasonable to expect that said plasticizers are compatible for adhesives of both inventions. Therefore, it would have been obvious to one having ordinary skill in the art to use the plasticizers disclosed by Coopridier *et al.* for use in the embodiment contemplated by Plamthottam *et al.* to arrive at the adhesive composition claimed in the present invention.

17. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plamthottam *et al.* in view of Mallya *et al.*

The discussion of the disclosures of the prior art of Plamthottam *et al.* and Mallya *et al.* from paragraph 11 of this office action is incorporated here by reference.

Claim 22 of the present invention recites a blend of two pressure sensitive adhesives. The first adhesive of the blend is that of claim 1. As elucidated above, claim 1 was rejected as being anticipated by Plamthottam *et al.* The requirements of the second adhesive of the blend is

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identical to that taught by Mallya *et al.* The crosslinking agent in the blend (claim 23 and 24) is furnished by an adhesive made by Plamthottam *et al.*, but not by Mallya *et al.* Therefore, it would have been obvious to one having ordinary skill in the art to combine the adhesives of both prior arts to arrive at the composition described in the claims of the present invention. The combination of two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition that is to be used for the very same purpose may be *prima facie* obvious. *In re Susi*, 440 F.2d 442, 445, 169 USPQ 423, 426 (CCPA 1971).

18. Claims 25-35, 37-39, 43, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable over Plamthottam *et al.* in view of Mallya *et al.*

Claim 22 of the present invention recites a blend of two pressure sensitive adhesives. The first adhesive of the blend is essentially that of claim 1, except the requirement of at least one crosslinkable monomer is absent. Within the scope of the claim, said first adhesive is still identical to that of Plamthottam *et al.* The requirements of the second adhesive of the blend is identical to that taught by Mallya *et al.* The prior arts encompass all elements of claims 26-35 and 37-39. The tackifier and plasticizer (claim 43) and crosslinking agent (claim 45 and 46) in the blend is furnished by an adhesive made by Plamthottam *et al.*, but not by Mallya *et al.* Therefore, it would have been obvious to one having ordinary skill in the art to combine the adhesives of both prior arts to arrive at the composition described in the claims of the present invention. The combination of two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition that is to be used for the very

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same purpose may be *prima facie* obvious. *In re Susi*, 440 F.2d 442, 445, 169 USPQ 423, 426 (CCPA 1971).

19. Claims 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plamthottam *et al.* in view of Mallya *et al.*

The present invention recites a blend of two pressure sensitive adhesives. As established previously, the first adhesive, designated as adhesive (1), of the blend is identical to that of Plamthottam *et al.*, and the second adhesive, designated as adhesive (2), of the blend is identical to that taught by Mallya *et al.*

The compositions of both prior arts, and hence, adhesives (1) and (2), contain an additional alkyl (meth)acrylate ester whose alkyl group contains less than 4 carbon atoms, as stated in claim 40 and 41 of the present invention. Only the adhesives of Plamthottam *et al.* contain at least one copolymerizable monomer such as polystyryl ethyl methacrylate or acetoacety ethyl methacrylate, as recited in claim 40 and 42. Therefore, only adhesive (1) contains said copolymerizable monomer. However, claim 40 of the present invention requires that both adhesive (1) and (2) contain said copolymerizable monomer.

Plamthottam *et al.* teach the incorporation of said copolymerizable monomer, among various other adjuvants, for the purpose of adjusting adhesive properties to achieve optimal performance. Since the formulations of both teachings are similar, it is likely that said copolymerizable monomer is compatible in both systems. Therefore, it would have been obvious to one having ordinary skill in the art to use said copolymerizable monomer in adhesive (1) as well, and subsequently combine both adhesive (1) and (2) in a blend to achieve a final

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product with optimized adhesive properties as that described in the claims of the present invention. The combination of two compositions, each of which is taught by prior art to be useful for the same purpose, in order to form a third composition that is to be used for the very same purpose may be *prima facie* obvious. *In re Susi*, 440 F.2d 442, 445, 169 USPQ 423, 426 (CCPA 1971).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-3956. The fax phone number for the organization where this application or proceeding is assigned is (703)305-3599. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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July 13, 2001


DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700